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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/765,772	01/19/2001	Rodney M. Goodman	06618/581001/CIT-3154	9796

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EXAMINER

CHANG, JON CARLTON

ART UNIT PAPER NUMBER

2623

DATE MAILED: 03/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/765,772

Applicant(s)

GOODMAN ET AL.

Examiner

Jon Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3 and 5-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-18 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Applicant's Amendment and Arguments

1. The amendment filed December 26, 2002, has been entered and made of record.

In response to the amendment, the rejection under 35 U.S.C. 112, second paragraph, and the objection to claim 22 are withdrawn.

Applicant's arguments have been fully considered.

With regard to claim 1 (as amended) Applicant argues (page 8) that Huttenlocher does not teach or suggest the concept of having higher and lower priority information. Applicant relates this "higher and lower priority" to the claimed "higher profile features which have higher weighting parts during recognition" and "lower profile features which have lower weighted parts during recognition". The Examiner agrees. The rejection under 35 U.S.C. 103(a) relying on Huttenlocher is withdrawn.

The Examiner notes, however, that he is unable to find support for these limitations in the original specification. The Examiner has reviewed the entire specification and is unable to find support for higher/lower priority/weights with regard to the higher and lower profile features.

With regard to claim 9, Applicant argues that recognition of syllable blends are different from individual syllables, implying that Huttenlocher does not teach recognition of syllable blends. After further review of Huttenlocher, claim 9, and the specification, the Examiner agrees. Huttenlocher does not appear to teach this feature.

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With regard to claim 10, Applicant dismisses the Examiner's rejection, asserting that OCR software "teaches nothing about how to recognize family names". In response, the Examiner wishes to make the following point. Claim 10 requires that the sample of handwriting "includes" family names. Claim 1 requires segmenting the sample into separate handwritten words. This implies that some of the words are family names, some may not be. Therefore, in the claimed "attempting to recognize a whole handwritten word," there would be the situation that the word is not a family name. In other words, claim 10 does not require that the handwritten word which is attempted to be recognized, is a family name. Claim 10 only requires that the sample of handwriting includes family names. Recognition of family names is not claimed.

With regard to claim 11, Applicant states (page 9) that the Examiner's position that words may include names oversimplifies the rejection. Applicant has a similar argument (page 10) with regard to claim 17, stating that the prior art teaches using OCR to recognize words, not family names. The Examiner provides the following response. The Examiner's position is that Huttenlocher's invention recognizes words using a dictionary, and it is up to the designer to decide what words to include in the dictionary. Family names are words. If the designer wanted to recognize family names, place names, first names, nicknames, or whatever kinds of words he wanted to recognize, he/she would provide the dictionary with the appropriate information.

With regard to claim 15, Applicant argues (page 10) that the prior art does not teach or suggest using prime profiles and concatenated profiles that are indicative of letter combination, and that Huttenlocher teaches nothing about recognizing single

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letters differently from multiple letters. The Examiner responds by pointing out that nothing in the claim relates to "letter combination" or single letters being different from multiple letters. Further, the claim deals with analyzing words, which is what Huttenlocher is concerned with.

Claim Objections

2. Claims 3 and 21 are objected to because of the following informalities:

Claim 3 depends from cancelled claim 2. It appears claim 3 should depend from claim 1. For this action, this is the assumption.

Claim 21 is redundant with respect to claim 15. Claim 21 recites features which are already in claim 15, while depending from claim 15.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. Claims 1, 3 and 5-14 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 recites, "determining higher-profiles features which have higher weighted parts during recognition, and low profile features which have lower weighted parts during recognition." There does not appear to be support for this limitation in the

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originally filed disclosure. If Applicant disagrees, he is requested to point out the exact location within the original specification which supports this limitation.

Claims 3 and 5-14 depend from claim 1.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 15-18, 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,557,689 to Huttenlocher et al. (hereinafter "Huttenlocher").

As to claim 15, Huttenlocher discloses a method comprising:

analysing a sample of handwriting by analysing a whole word of said sample at any one time, said analysing comprising forming information indicative of a silhouette

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of said whole word, and comparing said information with a database of information about other silhouettes (Fig.1B, elements 24, 28 and 26; column 5, line 65 to column 6, line 2), wherein said silhouette information includes prime features (e.g., each vertical arrow in Fig.18B), and concatenated proviles indicative of combinations of specified features (Fig.18B and 18C; note the vertical arrows concantenated to indicate the string of characters in a word).

As to claim 16, Huttenlocher further discloses that the database of information comprises a database of information obtained from a list of possible words (column 10, lines 32-34).

Claim 17 is similar to claim 15. The remarks provided above for claim 15 are applicable here. Claim 15 further requires that the words are family names, and said list of possible words is a telephone book. Huttenlocher does not mention family names. However, the invention recognizes words, regardless of their use. Since family names are comprised of a word or words, it would have been obvious to utilize Huttenlocher's method to recognize family names. It would be a designer's decision to utilize any particular types of words in Huttenlocher's dictionary, corresponding to the type of words desired to be recognized. Telephone books are exceedingly well known as being lists of family names.

With regard to claim 18, Huttenlocher further discloses that the silhouette information includes information about the presence of high and low parts in the written word and the position of those high and low parts (see Fig.18B).

With regard to claim 21, Huttenlocher further discloses determining prime

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features (e.g., each vertical arrow in Fig.18B), and concatenated proviles indicative of combinations of specified features (Fig.18B and 18C; note the vertical arrows concantenated to indicate the string of characters in a word).

With regard to claims 22-23, Huttenlocher discloses that each of a plurality of silhouette information is provided with or assigned a number (column 17, lines 16-17).

Allowable Subject Matter

7. Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

References Cited

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bozinovic et al. "Off-Line Cursive Script Word Recognition" teaches recognition of words written in cursive. Among other concepts, the paper teaches analyzing the upper, lower and middle zones of a word.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon Chang whose telephone number is (703)305-8439. The examiner can normally be reached on M-F 8:00 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.


Jon Chang
Primary Examiner
Art Unit 2623

Jon Chang
March 8, 2003